UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,606	09/01/2006	Young-Sik Choi	B-5850PCT 623145-5	6248
36716 LADAS & PAR	7590 06/27/201 RRY	EXAMINER		
	E BOULEVARD, SU	ANYIKIRE, CHIKAODILI E		
LOS ANGELE,	GELES, CA 90036-5679		ART UNIT	PAPER NUMBER
			2482	
		MAIL DATE	DELIVERY MODE	
			06/27/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/562,606	CHOI ET AL.
Office Action Summary	Examiner	Art Unit
	CHIKAODILI ANYIKIRE	2482
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet with th	ne correspondence address
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D  - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period  - Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailine earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICAT 136(a). In no event, however, may a reply b will apply and will expire SIX (6) MONTHS to cause the application to become ABANDO	ION. e timely filed from the mailing date of this communication. DNED (35 U.S.C. § 133).
Status		
<ul> <li>1) Responsive to communication(s) filed on 11 M</li> <li>2a) This action is FINAL. 2b) This</li> <li>3) Since this application is in condition for alloward closed in accordance with the practice under M</li> </ul>	s action is non-final. nce except for formal matters,	•
Disposition of Claims		
4) ☐ Claim(s) 1-18 is/are pending in the application 4a) Of the above claim(s) is/are withdra 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-18 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or	wn from consideration.	
Application Papers		
9) The specification is objected to by the Examine 10) The drawing(s) filed on 01 September 2006 is Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Example 11.	are: a) $\square$ accepted or b) $\square$ obdiviously drawing(s) be held in abeyance. Ition is required if the drawing(s) is	See 37 CFR 1.85(a). objected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority application from the International Burea * See the attached detailed Office action for a list	ts have been received. ts have been received in Applic rity documents have been rece u (PCT Rule 17.2(a)).	cation No eived in this National Stage
Attachment(s)		
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summ Paper No(s)/Ma 5) Notice of Inform 6) Other:	

Art Unit: 2482

## **DETAILED ACTION**

1. This application is responsive to amendment filed on September 01, 2006.

Claims 1-18 are pending and have been examined.

## Response to Arguments

2. Applicant's arguments filed May 11, 2006 have been fully considered but they are not persuasive.

The applicant argues that Uchihachi nor Crinon does not explicitly teach wherein the video summarization generation module comprises a scalability processing module for receiving the summarization time information from the user, repeatedly performing a scalability process, and generating a video summary having a time range desired by the user (Remarks of May 11, 2011, page 8 lines 2-6). The examiner respectfully disagrees. Uchihachi discloses the selection of the user parameters selected by the user affects and provides the desired time range of the user and therefore discloses the claim limitation of claim 1 (column 5 lines 59-63 and column 10 lines 8-22).

## Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Art Unit: 2482

4. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- 5. Claims 1-18 rejected under 35 U.S.C. 103(a) as being unpatentable over Uchihachi et al (US 6,535,639, hereafter Uchihachi) in view of Crinon (US 6,331,859).

As per **claim 1**, Uchihachi discloses an automatic video summarizer comprising:

an input unit for receiving a video source to be summarized and a desired summarization time from a user (Figure 3 element 310; column 5 lines 64 - column 6 lines 4);

an importance measurement module for generating importance degrees according to category characteristics of the video and a purpose of desired summary (Figure 3 element 330; column 6 lines 4-7); and

a video summarization generation module for applying shot information and an importance value to a characteristic support vector algorithm, and generating a video summary (Figure 3 elements 340 and 350; column 6 lines 7 - 10);

a scalability processing module for receiving the summarization time information from the user, repeatedly performing a scalability process, and generating a video

summary having a time range desired by the user (column 5 lines 59-63 and column 10 lines 8-22; the user parameters selected by the user affects and provides the desired time range of the user).

However, Uchihachi does not explicitly teach a video summarization generation module for applying shot information to a characteristic support vector algorithm.

In the same field of endeavor, Crinon teaches a video summarization generation module for applying shot information to a characteristic support vector algorithm (Figure 8; column 10 lines 33 - 53).

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the invention of Uchihachi in view of Crinon. The advantage would be providing a video summarization with the least distortion.

As per claim 2, Uchihachi discloses the automatic video summarizer of claim 1.

However, Uchihachi does not explicitly teach wherein the characteristic support vector algorithm is the OC-SVM (one-class support vector machine) algorithm.

In the same field of endeavor, Crinon teaches wherein the characteristic support vector algorithm is the OC-SVM (one-class support vector machine) algorithm (Figure 8; column 10 lines 33—53).

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the invention of Uchihachi in view of Crinon. The advantage would be providing a video summarization with the least distortion.

As per **claim 3**, Uchihachi discloses the automatic video summarizer of claim 1.

However, Uchihachi does not explicitly teach wherein the characteristic support vector algorithm is the fuzzy OC-SVM algorithm.

In the same field of endeavor, Crinon teaches wherein the characteristic support vector algorithm is the fuzzy OC-SVM algorithm.

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the invention of Uchihachi in view of Crinon. The advantage would be providing a video summarization with the least distortion.

As per **claim 4**, Uchihachi discloses the automatic video summarizer of claim 1, further comprising a shot detection module for extracting the video sources for respective shots (column 6 lines 1-10).

As per **claim 5**, Uchihachi discloses the automatic video summarizer of claim 1, comprising: an output unit for outputting the generated video summary to a screen; and a storage unit for storing the generated video summary (Figure 3 element 355 and Figure 8 element 720; column 6 lines 9-10 and column 9 lines 38-40).

As per **claim 6**, Uchihachi discloses the automatic video summarizer of claim 5.

However, Uchihachi does not explicitly teach wherein the video summarization generation module comprises: a characteristic support vector module for applying the shot information and the importance value to the characteristic support vector algorithm, and generating a video summary.

In the same field of endeavor, Crinon teaches wherein the video summary generation module comprises: a characteristic support vector module for applying the shot information and the importance value to the characteristic support vector algorithm, and generating a video summary; and a scalability processing module for receiving the summarization time information from the user, repeatedly performing a scalability process, and generating a video summary having a time range desired by the user (column 7 lines 7 - 24).

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the invention of Uchihachi in view of Crinon. The advantage would be providing a video summarization with the least distortion.

As per **claim 7**, Uchihachi discloses the automatic video summarizer of claim 6, wherein the shot detection module detects a shot from the video source to be summarized, configures a shot list, and transmits the shot list to the video summarization generation module (column 6 lines 1-8).

Regarding **claim 8**, arguments analogous to those presented for claim 1 are applicable for claim 8.

Regarding **claim 9**, arguments analogous to those presented for claim 2 are applicable for claim 9.

Regarding **claim 10**, arguments analogous to those presented for claim 3 are applicable for claim 10.

Regarding **claim 11**, arguments analogous to those presented for claim 5 are applicable for claim 11.

Regarding **claim 12**, arguments analogous to those presented for claim 6 are applicable for claim 12.

Regarding **claim 13**, arguments analogous to those presented for claim 1 are applicable for claim 13.

Regarding **claim 14**, arguments analogous to those presented for claim 2 are applicable for claim 14.

Regarding **claim 15**, arguments analogous to those presented for claim 3 are applicable for claim 15.

Regarding **claim 16**, arguments analogous to those presented for claim 1 are applicable for claim 16.

Regarding **claim 17**, arguments analogous to those presented for claim 2 are applicable for claim 17.

Regarding **claim 18**, arguments analogous to those presented for claim 3 are applicable for claim 18.

Art Unit: 2482

## Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHIKAODILI ANYIKIRE whose telephone number is (571)270-1445. The examiner can normally be reached on Monday to Friday, 7:30 am to 5 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272 - 7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2482

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHRISTOPHER S KELLEY/ Supervisory Patent Examiner, Art Unit 2482

/Chikaodili E Anyikire/ Examiner, Art Unit 2482